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NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

DELEGATION:
A COMPETENCY OF SUPERIOR PERFORMERS?

by

Gary K. Abe

and

William T. Babylon

December 1982

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The research was conducted utilizing the techniques originated by McBer in their study for the Navy. This thesis sought to find if the specific competency of delegation is more often demonstrated by superior Navy personnel and if LMET training has any significant impact upon managerial effectiveness and the use of delegation.

The results of the study found no significant relationship between delegation, managerial effectiveness, and LMET training.

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Delegation: A Competency of Superior Performers?

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Submitted in partial fulfillment of the
requirements for the degree of

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December 1982

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TABLE OF CONTENTS

I.	INTRODUCTION -----	8
II.	HISTORICAL BACKGROUND -----	12
	A. THE LITERATURE -----	12
	B. LMET BACKGROUND -----	16
	C. LMET DEVELOPMENT -----	20
	D. LMET COURSE DESIGN -----	23
III.	METHODOLOGY -----	27
	A. HETEROGENEOUS WORKFORCE PROJECT DESIGN -----	27
	B. ORIENTATION AND TRAINING OF THE RESEARCH TEAM -----	29
	C. SELECTION OF THE SAMPLE -----	31
	D. DATA COLLECTION -----	33
	E. BUILDING THE COMPETENCY MODEL -----	35
	F. CODING -----	37
IV.	THE DELEGATION COMPETENCY -----	41
	A. DEFINITION -----	41
	B. DESCRIPTION OF THE COMPETENCY -----	41
V.	RESULTS -----	46
	A. THE ORIGINAL DATA -----	46
	B. THE DATA AS REARRANGED -----	49
VI.	SUMMARY -----	60
	A. ANALYSIS -----	60
	B. CONCLUSIONS -----	63
	C. PROBLEMS WITH THE STUDY -----	63
	D. RECOMMENDATIONS -----	67

LIST OF REFERENCES ----- 70

INITIAL DISTRIBUTION LIST ----- 72

LIST OF TABLES

I.	LMET Competency Clusters -----	24
II.	Competencies of Managers of Heterogeneous Work Groups -----	38
III.	Incidents in Which Delegation was Coded -----	47
IV.	Behavioral Indicators--Used Alone or in Combinations -----	48
V.	Profile of Sample by Pay Grade -----	50
VI.	Profile of Sample by Service Community -----	50
VII.	Profile of Sample by LMET Attendance -----	50
VIII.	Summary of Average/Superior Ratings Using All Ratings -----	51
IX.	LMET Factor in Average/Superior Ratings -----	53
X.	Use of Delegation--Behavioral Indicator A -----	54
XI.	Use of Delegation--Behavioral Indicator B -----	55
XII.	Use of Delegation--Behavioral Indicator C -----	56
XIII.	Use of Delegation--Behavioral Indicator D -----	57
XIV.	Pearson Correlations -----	59

I. INTRODUCTION

Early in December 1981, Dr. Miguel Tirado and Dr. Richard McGonigal, at the Naval Postgraduate School, formed a research group consisting of seven Naval Postgraduate School students, one research assistant, and themselves in a project titled, "Improved Management Training for a Heterogeneous Work Force". This study was conducted under the auspices of the Human Resources Management Program, Navy Military Personnel Command, Washington, D.C.

Basically the project's objective was to provide studies, analysis, and training in support of the current management and planning in regard to the Navy's Human Resource Management System. The objective of this initial phase was to determine what distinguished a superior from an average manager of a heterogeneous work group. In doing so the study would clarify and compare the specific management competencies to the basic sixteen competencies validated in the 1979 McBer study¹ [Ref. 1: p. 134].

A second phase of the study, that did not involve the graduate students, would take the newly identified competencies and provide valuable insights and instructional guides for the Human Resource Management and LMET programs to address current needs for management training in these competencies.

¹Competencies are personal qualities and skills which are related to effective or competent performance of a job.

During the data collection which consisted of interviews with the study's sample, a recurring theme emerged which involved the chain of command, specifically over the use and nonuse of delegation. When considering the Navy's complex and rapidly advancing technological environment and tightening resource constraints, it would seem that managers would have a greater necessity to delegate some of their responsibilities to their subordinates.

The purpose of this thesis is to look at the delegation competency. Specifically, is there a relationship between the use of delegation and managerial effectiveness? Also, does graduating from the Leadership Management Education and Training (LMET) program have any significant impact upon managerial effectiveness and the use of delegation?²

It is felt that these are important questions to be answered due to the historical and present emphasis the Navy has placed on developing subordinates through increased responsibility and authority, as exemplified by the following statement:

What am I looking for especially from all of us? Well, I'm looking for things like delegation of authority down through the chain of command to the lowest competent level. I'm looking for junior officers and division officers who will employ the chain of command to perfection, challenging senior petty officers to assume

²Leadership Management Education and Training (LMET) is the Navy's course directed at teaching management skills and techniques to petty officers and officers. A complete background of LMET is discussed in Chapter II, Sections B-D.

an increased leadership role within the division, and giving them the authority to do so.³

It is also important because the Navy cannot afford to continually obligate manpower and financial resources into a program which may not be effective when those resources could be better utilized in manning and purchasing necessary equipment.

The thesis is divided into six major chapters. The first chapter is the introduction. The second is a brief historical review of the topic of delegation. It also provides a background of the original McBer study and the development of the LMET program which followed.

Chapter three discusses the methodology that was used in the heterogeneous work group project. It is a description of the preparations for data gathering, pre-arrangements conducted with the study's sample, and the methods used to analyze the data.

The fourth chapter provides some detailed information about the specific competency of delegation. This chapter provides how the competency was defined by the study group and examples of how the competency was used differently by superior and average performers.

The fifth chapter presents a description of the data and the data analyses.

³Excerpt from a statement by Admiral Thomas B. Hayward, Chief of Naval Operations, 9 January 1981.

Conclusions from the study are in Chapter six, after which an assessment of the study and recommendations for further research are offered.

II. HISTORICAL BACKGROUND

A. THE LITERATURE

Before discussing the specifics of this project, it would be helpful to have a brief review of the concept of delegation within the management sciences arena. Webster's New Collegiate Dictionary defines the verb, to delegate, as, "to entrust one's authority to another, to appoint as one's representative, or to assign responsibility or authority" [Ref. 2: p. 297]. This is a sufficient definition for common uses, but it lacks the depth and distinction required by management science.

The development of the Management Sciences provoked studies of authority and its uses. While delegation is normally considered within this sphere, it has been disheartening to note the lack of specificity with which classical theorists treat the topic. Max Weber writes about "strictly delimited" authority and systems of rules which are intended to add order to bureaucratic systems. He seems to envision delegation as the tasking of an "office" to execute a job. Such an "office" would be expected to perform every similar job that arises in the future. This is a systematic delegation which is impersonalized by the fact that the responsibility would be accorded to the "office" and any of its incumbents, rather than to any one individual because of personal traits or talents [Ref. 3: p. 40-50]. While the U.S. Navy certainly exhibits the

Weberian type of delegation, this study intends to focus more on the case by case, superior-to-subordinate, distribution of power and responsibility.

Henri Fayol does no better with this subject in his classic fourteen principles of management. He skirts the specific delegation issue while alluding to it in the principles of (2) authority and responsibility, (4) unity of command, and (9) scalar chain. As with Weber, Fayol concerns himself with systems in which positional delegation can occur, rather than with the individualized action this thesis envisions [Ref., 4: p. 23-37].

Because of the thesis' focus most of the rest of the classical organizational theorists must be dismissed, as well. Indeed, since "Herbert A. Simon could conclude in 1957 that 'there is no consensus in management literature as to how the term authority should be used'" [Ref. 5: p. 199], and since the classical theorists speak largely about the delegation of authority, any attempt to review the literature on delegation would seem too involved in definitional problems to be of significant value.

Much the same is true of the neo-classical writers, but for the purposes of this thesis it is useful to note the distinctions made by Chester Barnard. He divided authority in organizations into two parts, "authority of position" and "authority of leadership". It is the "authority of position", power because of one's place in the organizational hierarchy, that Weber acknowledged, though Barnard did not refer to

Weber's writings. It is more the "authority of leadership", power based on knowledge, ability, and understanding, which we will explore [Ref. 6: p. 173-174]. Moreover, we will look not only at the authority to delegate, but also the authority which is delegated.

The actual subject of delegation, particularly in the individual sense, was not adequately addressed until the middle of the twentieth century. In 1949, Paul Selznick wrote of "a control technique" called delegation. He specifically referred to an increase in demand for control by top management which led to instituting increased delegation of authority. Selznick then wrote about the consequences of increased delegation, i.e., specialized training and a restriction of the attention of the delegatee. Delegation, Selznick maintains, narrows the recipients' organizational perspective to a sphere which surrounds the immediate area of the delegated authority. The "bifurcation of interests" follows, along with other consequences. Yet, even with Selznick, delegation is viewed within a system, showing some reference to individuals, but attending more to the systematic advantages and disadvantages of organizational delegation [Ref. 7: p. 36-47].

The study of delegation in the individual sense was initiated with the study of leadership and management. In 1957, Donald and Eleanor Laird wrote what they believe is the first book devoted entirely to the subject of delegation. They attempt to separate the logical and economic factors from

human, psychological factors. For the most part they discuss delegation from an experiential base, though they embellish the text with psychological and social research. They do emphasize the sharing of decision making as well as work details in a manner similar to that which we will later be discussing.

In the Lairds' description, they propose some conditions which are conducive to delegating:

The records indicate that delegating works most successfully, in general, when the human climate is democratic, permissive, equalitarian, not secretive, not smothering. In such a climate the person delegated to feels that he is an associate rather than a subordinate, and also feels that he is sharing purposes with his chief, not merely going through motions the chief prescribes.
[Ref. 8: p. 20]

The Lairds also stress symptoms of over/under-delegating, the relationship between delegation and efficiency/effectiveness, when not to delegate, and to whom one should delegate.

In 1965, Gardner and Davis wrote, "survival (of managers) depends upon the successful utilization of employee ability. The manager cannot 'do it all' himself. If he is to be a successful manager, he must get his work done through others. He must define organizational objectives, ensure that they are understood, and fix responsibility for their achievement; in short, he must delegate" [Ref. 9: p. xi]. Interestingly, this reference is from a programmed text which has the focus of teaching individuals how to delegate--in much the same manner as this study will later refer to the term. As proposed by the authors 12 years ago, delegation is still a distinguishing

competency of good managers and there are still attempts to train people in the skill.

Many elements of delegation were enumerated by Dale McConkey in 1974. He stated in depth delegation takes place when the manager is given the widest possible latitude to determine his own destiny in the following areas [Ref. 10: p. 13]:

1. Responsibility: jurisdiction or scope of his job
2. Accountability: specific results he must achieve
3. Planning: doing the planning for his own organizational unit
4. Authority: having the authority necessary to make the decisions and take the action appropriate to his job
5. Decision making: making the decisions that need to be made for his unit
6. Directing: within a minimal monitoring or control system, being left alone to direct and manage his own organization and its resources
7. Monitoring: receiving the tailor-made feedback and data necessary to plan for his operation, monitor its progress, and take corrective action as required.

These areas are quite useful for examining delegation in a leadership/management framework as this thesis will do when examining LMET and the McBer models.

B. LMET BACKGROUND

Harvard professor David C. McClelland and psychologist David Berlew organized McBer and Company in 1970. In 1976

they started working on the development of the Navy's LMET program in fulfillment of a contract awarded the previous year.

McClelland, a respected clinical psychologist, is well known for his research on power, affiliation, and achievement motives [Ref. 11: p. 35-46]. He wrote a book, The Achieving Society, in which he discussed the need for achievement and its impact on society's economic growth. Through achievement and economic development man would be better equipped to chart his own destiny [Ref. 12].

After researching and becoming convinced of the achievement motive, McClelland sought to understand how the motive was acquired. Following his various motive development programs of training throughout the world, McClelland wrote, "...rather than developing 'all purpose' treatments, good for any person and any purpose, it (psychotherapy) should aim to develop specific treatments or educational programs built on laboriously accumulated detailed knowledge of the characteristic to be changed" [Ref. 13: p. 333]. McBer used the research on the motive development program to later build the Navy's LMET program.

Due to his research he did not believe that traditional type personnel testing was an adequate measure of an individual's future success. This was made most evident in 1971, when he criticized the intelligence and aptitude test community in a lecture given at the Educational Testing Service

in Princeton, New Jersey [Ref. 14: p. 1-4]. He had made some of the same criticisms 15 years earlier while serving on The Social Science Research Council Committee on Early Identification of Talent [Ref. 15]. His key issue was the validity of the intelligence and aptitude tests that were in vogue at the time. He granted that test scores correlated highly with grades in school, but were grades a valid predictor of success in life? He argued that good test scores allow people to get into better schools, but after graduation both good and poor test scorers succeed and fail. He suggested that other talents or competencies should be used to determine college entrance. These new criteria should not be "grades in school" but "grades in life" [Ref. 14: p. 7]. He was not alone in his beliefs as other researchers had found evidence that supported his criticism [Refs. 16, 17, 18].

Having criticized the testing community, McClelland provided his audience six principles for an alternative approach to traditional intelligence testing. Although all six were used in the formation of the Navy's LMET program, the following three played a special part in its development:

1. Criterion sampling
2. Tested characteristics are made public and explicit
3. Assess competencies involved in cluster of life outcomes.

The first principle concerned criterion sampling which
McClelland described in the following manner:

Criterion sampling means that testers have got to get out of their offices where they play endless word and

paper-and-pencil games and into the field where they actually analyze performance into its components.
[Ref. 14: p. 7]

Criterion sampling is thus based upon observing a person at a task or job and then analyzing how well that person performed.

He points out that academic skill tests have been successful in the past because they involve criterion sampling. For instance, the Scholastic Aptitude Test (SAT) taps skills that the teacher is looking for and will give good grades for. The trouble came about, McClelland says when people started to wrongly assume that these tests could be more generally applied in predicting other abilities, such as being a competent doctor or a successful businessman.

The second principle is that in order to improve on a characteristic tested it should be made public and explicit. This principle sharply conflicted with the practice of the testing movement. Testers, supported by the American Psychologists Association (APA) Ethics Committee, tried to keep answers to many of their tests a secret in order to prevent people from practicing and learning to do better on them or faking high scores. McClelland stated, "Faking a high score is impossible if you are performing criterion behavior, as in tests for reading, spelling or driving a car. Faking becomes possible the more indirect the connection is between the test behavior and the criterion behavior" [Ref. 14: p. 9]. For example, doing analogies is a task that is incorporated in the SAT and one that predicts good grades in school fairly well. Since school work usually does not involve the use of analogies

psychologists have had to become security conscious over the test. They fear that if students get hold of the test answers, the students might practice and then "fake" high aptitude. McClelland notes that what is meant by faking is that doing well on analogies is not part of the criterion behavior (getting good grades), or else it could be hardly be considered testing.

The third principle is that tests should assess competencies involved in clusters of life outcomes. In order to avoid the problem of compiling hundreds of specific criterion sampling for one job, McClelland suggests it may be desirable to assess competencies that are more generally useful in clusters of life outcomes. He notes that tests must not only focus on the occupational outcomes but also social ones as well, such as leadership and interpersonal skills. He provides descriptions of four social competencies: communication skills, patience, moderate goal setting, and ego development [Ref. 14: p. 10-11].

C. LMET DEVELOPMENT

In 1975 McBer and Company was selected to develop a leadership and management education program for the Navy. McBer's primary aim was to identify the important criteria of non-technical leadership and management performance for commissioned officers (division officer, department head, executive officer) and non-commissioned officers (petty officer, leading petty officer, leading chief petty officer, and master chief petty officer) [Ref. 19: p. 7]. In order to do this 59

commissioned officers and 23 non-commissioned officers were interviewed from the Pacific Fleet at San Diego, California. McBer asked the commanding officers of each interviewee to rate the individual as a superior or an average performer. Ratings were received on 33 commissioned officers and 18 non-commissioned officers with 30 being identified as superior and 21 as average performers. The same procedures were used to draw a sample from the Atlantic Fleet in Norfolk, Virginia, where 38 superior and 40 average performers were identified [Ref. 1: p. 4].

Interview data was collected through a technique called Behavior Event Interviewing (BEI). This technique gets the interviewee to relate some critical incidents, that is, important success and failure experiences they had in their present positions. They are specifically requested to describe in considerable detail the following items:

1. The situation and what led up to it.
2. Who was involved.
3. What the interviewee felt, wanted or intended in the situation.
4. What the interviewee actually did in the situation.
5. What others actually did.
6. The results of this action.

Klemp and Spencer describe how the BEI differs from other interview techniques in the following ways:

1. It is a probing strategy rather than a standard set of questions. It provides the opportunity for the interviewee to choose what he sees as his most critical job experiences.

2. It is investigative, not reflective. The object is to find out what occurred not what the respondent thinks he should or might have done under similar circumstances.

3. It presses the interviewee to provide information on their actual behavior--thoughts and actions--and not what they conclude it takes to do their job.

[Ref. 20: p. 1]

Trained BEI interviewers can thus find out what people actually do rather than what they espouse to do. Another advantage is that it focuses on what people do that is most important for job success, social as well as technical knowledge and skill factors.

The BEI method is not new. John Flanigan developed an interview procedure during World War II which he called the critical incident technique. This technique came about through his inquiry on the reasons for failures of bombing missions during the war. He asked combat veterans to describe incidents that involved behavior which impacted on the success or failure in accomplishing their missions [Ref. 21: Chapter IV].

The BEI interviews that McBer conducted were recorded verbatim and later behavior criteria that superior and average performers differed on were identified into 27 competencies and grouped into 5 clusters [Ref. 19: p. 15]. The interviews from the Atlantic Fleet were used to cross-validate the findings found in the Pacific Fleet. This was done by trained personnel who scored each interview as one from a superior or average performer based on the competencies found

in the Pacific Fleet. The scoring was done in the blind, that is scorers had no knowledge if an individual was rated superior or average by their commanding officer.

A second technique was used in the validation process. This technique consisted of a paper-and-pencil test developed to measure the competencies over a much larger population. This test was administered to over 1000 officers and enlisted personnel from both fleets and who held billets from petty officer through commanding officer [Ref. 1: p. 6].

Following the validation process sixteen of the twenty-seven competencies were found to be associated with superior leadership and management performance. These sixteen competencies shown in Table I, were to become the basis for the development of the instructional format of LMET [Ref. 22: p. 8].

D. LMET COURSE DESIGN

LMET formally started in 1978 and is now being taught at Memphis, Tennessee; Little Creek, Virginia; Mayport, Florida; Pensacola, Florida; Newport, Rhode Island; Charleston, South Carolina; Coronado, California; San Diego, California; Treasure Island, California; Bangor, Washington; and Pearl Harbor, Hawaii [Ref. 23: p. 35]. Instructors are taught at a 12-week instructor course at the Human Resources and Management School in Memphis, Tennessee. Personnel must complete this school in order to teach in the LMET classroom.

TABLE I
LMET Competency Clusters

1. Efficiency and Effectiveness

- * Setting goals and performance standards
- * Taking initiatives

2. Skillful Use of Influence

- * Influences
- * Team builds
- * Develops subordinates
- * Self-control

3. Advising and Counseling

- * Positive expectations
- * Realistic expectations
- * Understanding

4. Management Control

- * Plans and organizes
- * Optimizes use of resources
- * Delegates
- * Monitors results
- * Rewards
- * Disciplines

5. Conceptual Thinking

- * Conceptualizes

Each LMET track is tailored toward a particular leadership and management level: executive officer, division officer, chief petty officer and petty officer.

At each level there is differing emphasis on the sixteen competencies. This is because at each management level certain clusters are utilized more frequently and are more critical to superior performance than others. For example, the

executive officer track may spend more classroom time on the influence cluster than the division officer track.

The program for the officers are further subdivided with separate courses for specific specialities: aviation, submarine, and surface warfare officers. All courses are team taught by two or three contemporaries, i.e., aviation officers teaching the aviation LMET course and chief petty officers instructing the chief petty officer LMET course.

The one week executive officer course and the two week course for the other tracks present the students with leadership and management principles and skills that were identified in the McBer competency model that differentiate superior from average performers. Each course takes the students through a five step process:

1. Recognition. Each competency is introduced to the student in terms of desired skills, knowledge, attitudes, etc. This step utilizes material adapted from actual incidents collected in the BEI.

2. Understanding. Each participant translates what he has learned in the previous step into a language of his own.

3. Self-assessment in relating to the competency. Each student identifies his personal strengths and weaknesses through recognizing the value of the skills, attitudes and personal qualities necessary in their own jobs and careers.

4. Skill acquisition and practice. Participants practice all skills identified in each competency with emphasis on those that each feels improvement is needed.

5. Job application. Participants develop action plans to apply the newly acquired knowledge and skills to their jobs [Ref. 1: p. 10].

During this training, skills and knowledge are developed through lectures, case studies, role plays, films and exercises. By using these many different learning styles, a more productive atmosphere for individuals to learn and express feelings and opinions in small groups is provided.

III. METHODOLOGY

A. HETEROGENEOUS WORKFORCE PROJECT DESIGN

The design of the heterogeneous workforce project was based on McBer's methodology that developed LMET. The object of the heterogeneous workforce project was to identify the important leadership and management competencies in a selected sample of commissioned and non-commissioned officers who supervised a diverse work group. A diverse work group was considered one which was characterized by racial and ethnic diversity, male-female composition and by civilian-military distribution. The presence of one or more of these dimensions of heterogeneity was used to differentiate those work groups in the study. The procedure utilized to identify these competencies were conducted in the following sequence:

1. Orientation and training of the research team in the McBer Behavior Event Interview technique
2. Selection of the Sample
3. Conduct of the Data Collection
4. Development of the Competency Model
5. Coding of the Data
6. Analyzing the Data.

As in any research study there are constraints which must be addressed by the researchers early in the development of the study. Two major obstacles of this study were time and personnel availability. The research proposal submitted by

the project directors estimated a time period of 1 October 1981 to 30 June 1982. This was later proven to be unattainable as the project developed. During this period the research team was to be formed and trained, the data collected, the model conceived, the data analyzed, and the final results written. The problem was compounded when the sponsoring activity requested the study be extended toward The Women in Ships Program.¹

This occurred at a time the data collection was nearing the completion date. Besides extending the data collection period it also had a ripple effect upon the coding and analysis phases of the study by increasing the sample size from 75 to 104 people.

The other constraint of resource availability also tied in with timing. As mentioned previously seven graduate students were involved in this project. These students were in their third and fourth quarter of a six quarter curriculum carrying an average of 20 quarter hours. It proved to be a demanding schedule for them between their graduate studies and the time required for the travel to and from the data collection sites and the actual collection of the data.

¹Federal law prohibited Navy women from serving on board other than Navy transports and hospital ships. The Women in Ships program came about due to a congressional change in law in which women could be assigned to selected non-combatant ships for normal tours of duty and to any class of ships on temporary additional duty, provided the ship is not in combat.

The study was also dependent upon the availability of commands in which samples could be extracted. This topic is addressed later in detail.

B. ORIENTATION AND TRAINING OF THE RESEARCH TEAM

The technique (investigative-interviewing) is an essential component of McBer's Job Competence Assessment (JCA), which defines the critical skills needed for job success and identifies the individuals who possess those skills in high degree.
[Ref. 20: p. 1]

During the week of 10-14 January 1982, the research team participated in a workshop conducted at the Naval Post-graduate School by a McBer consultant.² The workshop was designed as an intensive two day experience but due to the graduate students' class schedules critical incident interview training was conducted in six three hour blocks scattered throughout the week.

The first three-hour block was to orient the team on the background of the job competency model developed by McBer for the Navy's LMET program and how the research project would extend the initial study by focusing on the diverse work groups impact on that model. Also addressed at this time were the procedures and the structure of conducting the McBer BEI.

² Steve Newbert, a graduate of the Harvard Graduate School of Business Administration, was very familiar with the Navy's competency model and LMET program. He managed the development and implementation of the Navy's 12-week LMET instructor program and was currently involved in a project to identify competencies of outstanding technical instructors and recruit company commanders for the Navy.

The second and third three-hour block concentrated on conducting an actual interview. Each member interviewed another while the others watched, listened, and took notes on their observations. The interview was recorded and was approximately 45 minutes in length. After the interview was completed the interviewee was asked to provide his impression of the interview. For example, was he made comfortable by the interviewer? Were all his questions about the interview answered sufficiently and clearly by the interviewer? Were the interviewer's instructions made understandable? This was followed by a self evaluation from the interviewer. The interviewer evaluated himself on the specific procedures of the BEI methodology. The group then provided additional constructive feedback which was then added to and summarized by the McBer consultant. This process was continued for all workshop participants.

The fourth three-hour block was devoted to a general analysis by the consultant of the workshop participants' strengths and weaknesses. He also at this time provided additional support and advice on how all participants could increase the effectiveness of their interviewing techniques. The remaining time was used to orient the participants on the coding of the BEI.

The final two three-hour workshop meetings were second practice sessions on the critical incident interview technique. This phase was conducted the same as the first, except each participant interviewed a different team member.

The workshop participants were then tasked to arrange an interview with a non-workshop participant who was not familiar with the BEI technique. This interview was to be conducted utilizing all the training received from the workshop. The interview was recorded and later sent to McBer where it was evaluated by the staff of McBer for individual certification in the BEI technique. The evaluation was reflective of the same criteria as discussed and demonstrated during the workshop. The McBer reviewer provided detailed feedback on the quality and completeness of each incident in the interview. All participants received certification on the first submission of their interview tapes.³

C. SELECTION OF THE SAMPLE

The research plan was to obtain a wide ranging sample of various shore, air and fleet commands. These commands were drawn from the three geographical areas: San Diego, California; Pearl Harbor, Hawaii; and San Francisco, California.

The sample was composed of personnel in the grades of E-5 and E-6 (Petty Officer), E-7 through E-9 (Chief Petty Officer), and O-1 through O-4 (Division Officer) who were managing a diverse work group.

³Although there were seven graduate students involved in the study only six participated in the workshop and were eventually certified. The seventh person joined the group at a later date. She received training in the BEI technique from the other members prior to any collection of the data.

Initially the research assistant would contact an HRMC (Human Resource Management Command) or HRMD (Human Resource Management Detachment) personally or telephonically on the project and request their assistance in the selection of a command to provide a sample. The actual selection of the command was left to the discretion of the HRMC or HRMD. The only guidance given to the HRMC or HRMD was that the sample command be composed of supervisors of diverse work groups. Undoubtedly, a major consideration which determined the command that was sampled was their workload at that time and for ships whether they were in port and available for interviews.

Approximately two weeks prior to the interview the HRMC or HRMD was called to nominate a sample command. Once the command was identified and a point of contact was provided, a research assistant contacted the command. The research assistant explained to the point of contact, usually the executive officer, the purpose of the proposed visit, what was needed from the command, and the time period involved. The HRMC or HRMD generally briefed the commands sufficiently beforehand that there were no real problems encountered at this time. Dates, times, and necessary resources were later confirmed prior to the team's arrival.

The actual selection of the personnel who were to participate was usually determined by the executive officer of the command. Guidance given to the executive officer was that

the study would use a number of officers and petty officers who supervised a diverse work group and varied in the characteristics of ethnic background, LMET/non-LMET graduate, and gender. The latter was sometimes not obtainable as in cases in which commands had no females, such as in certain types of naval vessels. Although it is not known what actual criteria were used by the executive officer in his selection process, generally the sample provided was similar to that requested.

D. DATA COLLECTION

Once a command was selected and administrative matters were confirmed (when, where, who, and why) the research team set out to the command on the specified date. Due to the emphasis placed on preparing the command for the team's entry and also the time spent on insuring that all details were taken care of prior to our arrival, the officer of the deck or in the case of shore facilities, the point of contact, was normally waiting for the team's arrival. After the necessary introductions and during a brief welcoming the research assistant would receive the CO's evaluation of each interviewee whether he was a superior or average performer. This was to become a part of a process which identified how superior and average performers differed in their utilization of certain management competencies. In order to achieve more reliability on the CO's evaluation, the interviewers

were required to rate their respondents as superior or average after the completion of the interview.

It should be noted that each interviewer did his evaluation in the blind. He did not know how the CO evaluated his respondent. Although each interviewer was provided general characteristics to assist him in making an evaluation, i.e., bearing, speech, confidence, content of interview, it came down to the "gut" reaction of the interviewer. This information was later checked for reliability during the coding phase and later served an important part in the analysis of the data.

The BEI was the exclusive data collection tool. The procedures and techniques described in the Orientation and Training phase were utilized throughout the collection of data period. It is not known how much error can be attributed to individual differences in interview techniques, interview bias in the number or in the positive or negative outcome of incidents recorded, and the extent to which incidents reported actually measure respondent skills. Research by Finkle (1950) indicates that variation in the questions used to elicit critical incidents does not significantly affect subjects responses [Ref. 24: p. 291-297].

Each interview was conducted in a private room on a one to one basis. It was requested that the room be in a quiet location away from distractions but in some cases this was not possible. For example, a few of the sampled vessels were

in port and were undergoing repairs or replenishment. The problem from noise had a negligible impact upon the collection of data as only 6 interviews had to be eliminated due to the poor quality of recording..

Each interview was approximately 1 1/2 hours in length and was recorded verbatim. These recordings were later transcribed in entirety. There was no significant problem of gaining the respondent's permission to have the interview taped. This was due to the emphasis placed on insuring that the interviewee understood why he was selected, the purpose of the study and the maintenance of confidentiality on the part of the research team.

It was the goal that each interviewer probe for equal numbers of positive and negative incidents. There was some variation to this because of interviewee preferences and experiences.

E. BUILDING THE COMPETENCY MODEL

After the data collection was completed the group met with the McBer consultant to formulate and build a competency model.

Prior to the consultant's arrival each individual analyzed four transcripts utilizing the LMET model of sixteen competencies developed by McBer. The task was to read through the transcripts identifying managerial actions based on those sixteen competencies and also on any new ones respondent's utilized. Each member was asked to make a list of effective

actions taken to include the page number of the transcript from which each action was found. This was to generate a means for discussion and also to provide a support base as the model was formed.

On 6 and 7 May the group worked with the consultant to build the project's competency model. The initial procedure was to "brainstorm" those behavioral indicators that each individual found in his analysis. As each action was written on a chalkboard it was sometimes redefined in more concise terminology through examples and dialogue among the project participants.

The next phase was to identify any actions which were brought out in the "brainstorm" period that could be integrated into another or dropped due to duplication. This also provided a period in which the participants could more clearly visualize the formation of the model and add other competencies or behavioral indicators which were overlooked during the "brainstorm" phase.

This led to the actual model building stage. Working at first from the sixteen competencies, the team consolidated those actions that they felt fit under the sixteen competencies of the LMET program. As each of the sixteen competencies were discussed and reviewed the scope of the competency was often changed. Any change was dependent upon the description of the actions taken during each incident. From these actions behavioral indicators for each competency were developed. After all sixteen competencies were reviewed

and behavioral indicators were ascribed to each, the focus was placed upon those actions taken by the interviewees that did not adequately fit within the LMET model. At this point team members presented supportive incidents from interviews to draw a consensus if another competency was necessary. If the competency was found necessary a description of the competency was developed through a list of behavioral indicators.

The final result was that four competencies were added to the sixteen of the LMET model. The four new competencies that were conceptualized were: self-confidence, low fear of rejection, appreciation for human diversity and genuine concern for people. Also included were two threshold skills: concern for achievement and concern for influence. These two threshold skills were also part of the sixteen competencies of the LMET model. Threshold skills are those competency elements which do not significantly differentiate superior from average performers, but which tend to be observed in most competent personnel and are deemed necessary for adequate performance. For the benefit of developing training course and teaching material at a later date these twenty-two competencies were grouped into six clusters (Table II).

F. CODING

A total of 94 interviews were coded, producing 406 incidents. In order to accomplish this task, the research

TABLE II

Competencies of Managers of Heterogeneous Work Groups

1. Strong Self-Concept
 - * Self-confidence
 - * Low fear of rejection
 - * Appreciation for human diversity
2. Concern for Achievement
 - * Concern for achievement
 - * Sets goals and performance standards
 - * Takes initiative
3. Management Control
 - * Plans and organizes
 - * Optimizes use of resources
 - * Delegates
 - * Monitors results
 - * Rewards
 - * Disciplines
4. Skillful Use of Influence
 - * Concern for influence
 - * Self-control
 - * Influences
 - * Team builds
 - * Develops subordinates
5. Advising and Counseling
 - * Genuine concern for people
 - * Positive expectations
 - * Realistic expectations
 - * Understands
6. Conceptual Thinking
 - * Conceptualizes

team was divided into pairs. Each pair had three main objectives:

1. To code all interviews assigned to each individual for competencies and behavioral indicators.
2. To code the other team members' transcripts and reconcile the differences.
3. To identify incidents that provided good evidence of certain themes.

The process started by each pair receiving their assigned copies of transcripts, codebooks, and codesheet matrix forms. Once these were received, each individual read a copy of his assigned transcript to familiarize himself with the incidents and to identify and record locations of incidents dealing with specified subjects. The transcript was then reread for coding purposes. Using predetermined coding rules, each transcript was coded and page numbers for the best examples of each theme were recorded.

After each individual coded his assigned transcripts on the left margin, the transcripts were given to the other team member for coding. This time the second coder coded on the right margin while covering up the left. This insured that the coders were independently coding each transcript. It should also be mentioned that the coders were responsible for identifying each transcript as belonging to a superior or average performer. Thus, the superior and average performers were identified through inter-rater

reliability of the Commanding Officer, interviewer, and coders.

Each team met to discuss their coding, to reconcile their differences, and to arrive at a consensus for each interview transcript. A master copy of each transcript and the matrix codesheet reflected all coding conducted by each pair. Data from the matrix codesheets of each pair of coders was then transferred to a large competency frequency sheet which served as the basis for the input of raw data into the computer.

IV. THE DELEGATION COMPETENCY

A. DEFINITION

The delegation competency was one of six competencies that made up the management control cluster. The delegation competency was defined as "using the chain of command to get subordinates to take responsibility by any of the following behavioral means":

1. Clearly assigns authority to others for task accomplishments.
2. Uses the chain of command to get subordinates to share in task management.
3. Through methods other than direct orders, encourages people to seek task-management responsibility.
4. Controls the urge to "do it yourself" and, instead manages others to carry out the responsibilities which have been assigned to them.

The key factor that distinguishes this definition is that delegation must be behaviorally determined. It requires human action or communication. A description of the competency, through examples of critical incidents involving each behavioral indicator is presented in the next section.

B. DESCRIPTION OF THE COMPETENCY

The first behavioral indicator, "Clearly assigns authority to others for task accomplishment", represents

the transference of power (authority) from the holder to the entrusted representative. This behavioral indicator differs from the one McBer describes in the LMET model as: "Clearly assigning responsibility for task accomplishment to others" [Ref. 1: p. 25]. McBer uses "responsibility" while this indicator utilizes "authority". In order for individuals in the organization to perform their assigned tasks effectively, they must be delegated sufficient authority to carry out those tasks. This distinction between "authority" and "responsibility" insures that the person delegated to is provided the necessary power to carry out their assigned duties. The following portion of a critical incident illustrates how the behavioral indicator was used by a superior performer after failing to locate a submarine's signature during an exercise mission.¹

We were both a little embarrassed about it. But I didn't let it get us down. I had this talk with him (person responsible for identifying and fixing the submarine's signature) and decided who is going to make which calls. I delegated out the responsibility. I was still responsible for the whole mission, but I let it be understood that it was his call. I said, 'I'll try to talk you out of it, but it's your call. If I try to talk you out of it and you're sure it's it, tell me to eat (#!) and bark at the moon. That's it and I'll take your word for it.'

¹A submarine signature is a set of sound characteristics unique to a particular vessel. Once these characteristics are placed on file they can be compared to a live sonar sound pickup by an experienced technician and the vessel identified in much the same way as a signature can be attributed to a particular person.

It is apparent in this situation how the use of "authority" has extended the role of "responsibility" by the user in his interaction with his superior and the task at hand.

The second behavioral indicator, "Uses the chain of command to get subordinates to share in task management", is a management tactic that seeks the cooperation between two or more parties toward a set goal or standard. During the review of the transcripts it was found that managers who demonstrated this indicator generally employed various implementation strategies. One manager after several unsuccessful attempts to influence his subordinate to delegate some of the individual's responsibilities, consciously over-delegated to overwhelm his subordinate with additional tasks and missions. Excerpts of what occurred afterwards follows:

Everytime we would talk about it (set up a training program) he would say he was too busy and didn't have the time for that. I brought it up again and he said, 'Yeah, yeah, you're right'. I then told him that I wanted his subordinates' supervisors to have more responsibility and authority. He finally did that and started delegating out a lot of those things that he was trying to do himself. Basically that was what I was trying to get him to do all along.

The next behavioral indicator is, "Through methods other than direct orders, encourages people to seek task-management responsibility". The critical point of this indicator is the delegator urging his subordinate to take on additional responsibility thus leading to shared ownership in the task. The succeeding illustration portrays this portion of the competency:

The last division officer hadn't let him do anything. He said, 'When something needs to be done, you come to me and I'll tell you how it's going to be done'. So he (the subordinate) didn't see any point in trying to function as a Leading Petty Officer. A lot of talent was wasted there. So when I got the people together, I said, 'Alright you're going to be in charge of this and you're going to be in charge of that. Now we got to get it (preparing for an inspection) to work'. They started to realize, 'I've got something'. One of the things I did was to imply, 'This is yours'. If you have a problem ask me. If you don't have a problem just tell me what you're doing.

The final behavioral indicator, "Controls the urge to 'do it yourself' and, instead manages others to carry out the responsibilities which have been assigned to them", is characterized by self-control of the delegator in order to develop his subordinates through their successes and failures in assigned tasks. The following incidents of how two officers managed a similar situation provides a contrast of the use of this indicator. The first incident is from an average performer who delegated responsibility to his CPO to write a weekly information paper on what had occurred and what was expected to occur while on deployment.

...He would work some more on it, although he was not making any progress because he could not write very well. (After working on it a few more hours)...He handed it to me. I read it over and changed pretty much 90% of it... (Asked how the CPO reacted to this)... He just accepted it since I'm his boss. I'm sure he was not very happy about it....I ended up taking over this portion of the CPO's responsibility because whatever he wrote was a waste of time. I would have to do the whole thing over again anyhow.

The next incident involves a superior performer who held his Leading Petty Officer responsible for writing coherent

evaluation reports while battling the impulse to "do it himself".

...Since he (former division officer) knew that the leading petty officer couldn't do it, he was doing it himself. I wasn't going to do that. (After eight attempts by the petty officer to write the evaluations on his subordinates, all were returned by the delegator.) ...I didn't know what to do, but at the same time he was a first class petty officer and should have been able to do it. My first reaction was to do it myself, but then I'm not helping him any. So I kept returning them until they were satisfactorily written.

One of the factors that influenced the use of this behavioral indicator was time. It was often seen in this study that pressure to get a task or mission completed overrode the desire to insure that subordinates carried out their responsibilities. There may be various reasons for this occurring. Based on the authors' experiences it seems to center upon two key factors: the superior's evaluation of the delegator in accomplishing the mission on time (fitness reports) and also the extra time spent overseeing that the delegated task is completed according to established standards. It comes to a matter of situational trade-off between task completion or subordinate development, an important decision for any manager to make.

V. RESULTS

A. THE ORIGINAL DATA

A research assistant hired by the Heterogeneous Workforce project directors, reduced the original data and arranged it as a file of incidents. The record for each incident consisted of a data field for describing the interviewee to whom the incident related, and another field for the competencies which the coders ascribed to the incident. Every behavioral indicator of each competency (78 total behavioral indicators) had a character of information on the record to denote its presence or absence in the incident. This nominal arrangement of data applied to several of the data elements in the description of the interviewees, as well. Where the data was not nominal, ordinal values were established.

Because the data described incidents, individual characteristics (such as rate, age, sex, commander's vote on superior/average, etc.) could appear in the file more than once. Since some of the interviewees related as many as nine incidents, their profiles would be quite heavily weighted if statistics such as "LMET graduates' profiles" were calculated. The correction for this is found in the next section. The file arranged as incidents did, however, permit an excellent evaluation of which competencies were used in combination

with each other and which may have taken prominence in incidents of various themes.

For the study of delegation the subjects explored were: how many incidents showed the use of any delegation, how many times the four types of delegation were used in combination, and how many critical incidents were experienced when the interviewed supervisors did not delegate. Unfortunately, the evaluation of whether the interviewee felt effective or ineffective in the incidents was not coded, so conclusions about the effectiveness of supervisors who used delegation could not be drawn.

A total of 406 incidents were recorded. By using the Statistical Package for Social Sciences (SPSS) [Ref. 25: p. 194-201, 218-245] several informative tables were produced. For instance, the number of times each type of delegation was observed (shown in Table III) was obtained by using the "frequencies" procedure.

TABLE III

Incidents in Which Delegation was Coded

<u>Behavioral Indicator</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (%)</u>
A. Clearly Assigns Authority	43	10.6
B. Uses Chain of Command	43	10.6
C. Encourages Others--Avoids Direct Orders	46	11.3
D. Controls "Do it Yourself" Urge	29	7.1

After using the "crosstabs" procedure and distilling several tables of computer output to analyze the delegation competency, it was found that when one behavioral indicator of delegation was used other, behavioral indicators of delegation were less likely to be introduced into the same incident. This observation could be complicated by the fact that when delegation was coded, a single appearance of the competency could have been coded as two types--with parts of each type being indistinguishable from other types. Table IV shows how often the behavioral indicators appeared in combination with one another.

TABLE IV

Behavioral Indicators--Used Alone or in Combinations

<u>Behavioral Indicator(s) *</u>	<u>Frequency</u>	<u>Behavioral Indicators</u>	<u>Frequency</u>
A (alone)	19	B + C	3
B (alone)	21	B + D	3
C (alone)	24	C + D	6
D (alone)	13	A + B + C	5
A + B	8	A + C + D	1
A + C	4	A + B + C + D	3
A + D	3		
Times Behavioral Indicators Used Alone			77
Times Behavioral Indicators Used in Combinations			36
Times Delegation Competency Not Observed			<u>293</u>
Total Incidents			406

* Behavioral Indicators are coded as follows:

- A. Clearly Assigns Authority
- B. Uses Chain of Command
- C. Encourages Others--Avoids Direct Orders
- D. Controls "Do it Yourself" Urge

B. THE DATA AS REARRANGED

While this data is interesting, and could provide fertile ground for further study, it does not really get at the questions of whether superior performers use delegation more than average performers or whether LMET graduates use delegation more than people who have not been schooled in LMET. To do this, the data had to be rearranged as records which reflected individuals' performances rather than incidents. Because the other competencies were not in question, they were deleted when new records were created. One line of individual attributes was retained for each interviewee. Five data elements were added to this line: a number for how many incidents were discussed by the interviewee, and a number for each of the four delegation types which reflected how many times that individual used that type of delegation. This arrangement of data allowed a profile of the file based on the individuals as depicted in the "frequency" and "cross-tabs" tables that follow. The sample is well described by looking at three areas: what pay-grade the individuals were, as shown in Table V; what community the individuals represented, depicted in Table VI; and whether they had attended LMET School, shown in Table VII.

This study required a differentiation of the average and superior performers. There were varying opinions among commanders, interviewers and readers about which interviewees belonged in which category, but for the purposes of

TABLE V

Profile of Sample by Pay Grade

<u>Pay Grade</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (%)</u>
E-5	8	8.5
E-6	23	24.5
E-7	17	18.1
E-8	7	7.4
E-9	4	4.3
O-1	13	13.8
O-2	15	16.0
O-3	6	6.4
O-4	<u>1</u>	<u>1.1</u>
	94	100.0

TABLE VI

Profile of Sample by Service Community

<u>Category</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (%)</u>
Shore	28	29.8
Air Squadron	14	14.9
Surface	<u>52</u>	<u>55.3</u>
	94	100.0

TABLE VII

Profile of Sample by LMET Attendance

<u>Category</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (%)</u>
Yes	46	48.9
No	<u>48</u>	<u>51.1</u>
	94	100.0

this study clearly average was defined as having all three votes in the average category. Likewise, clearly superior was defined as three votes for superior. Data from interviewees who had mixed votes of superior and average was not used since the evidence concerning their performance was inconclusive. By using the "crosstabs" procedure, 27 clearly superior and 28 clearly average performers were found, as shown in Table VIII.

TABLE VIII

Summary of Average/Superior Ratings Using All Ratings

<u>Evaluations (CO/INT/RE) *</u>	<u>Absolute Frequency</u>	<u>Relative Frequency</u>	<u>Corrected Chi-Square</u>	<u>Significance</u>
S-S-S	27	29.0	6.57	.0104
S-A-S	3	3.2	--	--
S-S-A	10	10.6	--	--
S-A-A	8	8.5	--	--
A-A-S	7	7.3	--	--
A-S-S	7	7.3	--	--
A-S-A	4	4.3	--	--
A-A-A	<u>28</u>	<u>29.8</u>	<u>8.56</u>	<u>.0034</u>
	94	100.0	--	--

* Where CO = Commander, INT = Interviewer, RE = Reader
and where S = Superior, A = Average

A word about the significance figures that appear in the tables may be helpful here. Without going into the details of how the SPSS Program computes chi-square statistics, it can be simply stated that the chi-square test helps to determine whether a systematic relationship exists between

variables. The lower the chi-square value, the more chance there is that the variables are independent (i.e., that the variation of one does not explain the variation in the other). Conversely, as chi-square becomes large, the chances that the variables are related increase. The significance figures shown in the tables of this thesis represent the chance that variables are independent. For example: a significance of .01 means that there is 1 chance in 100 that the variables are not related. The significance level is often referred to as the "alpha-level" of the test. For this thesis, an alpha of .05 has arbitrarily been chosen as a reasonable level of significance from which sound conclusions may be drawn. A caution on the chi-square test is that it does not measure the strength of any relationship that may exist, and it should not be interpreted as such. The strengths of relationships are explored later in this chapter using Pearson's "r" [Ref. 25: p. 223-224].

In examining the differences between average and superior performance, crosstabulations revealed that LMET training was not a factor in determining individuals' ratings as average or superior performers. In fact, LMET education was a random factor in superior/average ratings, as shown by the significance figures in Table IX.

Next, each type of delegation, i.e., each behavioral indicator, was evaluated to determine whether LMET or average/superior ratings were a factor in the use of the competency.

TABLE IX

LMET Factor in Average/Superior Ratings

<u>Factor</u>	<u>Average</u>	<u>Superior</u>	<u>Total</u>
LMET (Yes)	13	15	28
LMET (No)	<u>15</u>	<u>12</u>	<u>27</u>
Total	28	27	55
Significance*	.9643	.8611	--

* as determined by Chi-square figures with 1 degree of freedom

The clearly average and clearly superior performers were categorized with respect to whether they used delegation and which behavioral indicator showed its use. A summary of this data is provided in Tables X through XIII, below. The significance figures provided therewith show that there was a wide variation in the characteristics of the people who used the competency, no matter which behavioral indicator was exhibited.

Further evaluations were performed to determine which types of delegation were used in conjunction with other types. This data, however, was better gleaned from the first data arrangement which was presented in Table IV.

Finally, linear regression analyses (Pearson correlations) were run on some data elements. Regression is an attempt to fit a line to the data points. In linear regression a straight line with the best fit is constructed and then

TABLE X

Use of Delegation--Behavioral Indicator A*

Superior Performers

<u># Incidents in which type A was observed</u>	<u># LMET Graduates</u>	<u># non-LMET Graduates</u>	<u>Total</u>
0	11	8	19
1	2	3	5
2	1	1	2
3	<u>1</u>	<u>0</u>	<u>1</u>
	15	12	27

Chi-Square = 1.357 with 3 degrees freedom:
Significance = .7156

Average Performers

<u># Incidents in which type A was observed</u>	<u># LMET Graduates</u>	<u># non-LMET Graduates</u>	<u>Total</u>
0	7	9	16
1	6	4	10
2	<u>0</u>	<u>2</u>	<u>2</u>
	13	15	28

Chi-Square = 2.52 with 2 degrees freedom:
Significance = .2837

* Behavioral Indicator A is "Clearly assigns authority".

Given these observations, there does not seem to be a significant relationship between Behavioral Indicator A and superior performance. Nor, does LMET appear to influence superior/average performance where this behavioral indicator is concerned.

TABLE XI

Use of Delegation--Behavioral Indicator B*

Superior Performers

<u># Incidents in which type B was observed</u>	<u># LMET Graduates</u>	<u># non-LMET Graduates</u>	<u>Total</u>
0	8	10	18
1	3	2	5
2	<u>4</u>	<u>0</u>	<u>4</u>
	15	12	27

Chi-Square = 4.14 with 2 degrees freedom:
Significance = .1262

Average Performers

<u># Incidents in which type B was observed</u>	<u># LMET Graduates</u>	<u># non-LMET Graduates</u>	<u>Total</u>
0	10	9	19
1	3	5	8
2	<u>0</u>	<u>1</u>	<u>1</u>
	13	15	28

Chi-Square = 1.417 with 2 degrees freedom:
Significance = .4924

* Behavioral Indicator B is "Uses chain of command".

Given these observations, there does not seem to be a significant relationship between Behavioral Indicator B and superior performance. Nor, does LMET appear to influence superior/average performance where this behavioral indicator is concerned.

TABLE XII

Use of Delegation--Behavioral Indicator C*

<u>Superior Performers</u>			
<u># Incidents in which type C was observed</u>	<u># LMET Graduates</u>	<u># non-LMET Graduates</u>	<u>Total</u>
0	6	8	14
1	4	2	6
2	<u>5</u>	<u>2</u>	<u>7</u>
	15	12	27

Chi-Square = 1.929 with 2 degrees freedom:
Significance = .3813

<u>Average Performers</u>			
<u># Incidents in which type C was observed</u>	<u># LMET Graduates</u>	<u># non-LMET Graduates</u>	<u>Total</u>
0	9	12	21
1	3	3	6
2	<u>1</u>	<u>0</u>	<u>1</u>
	13	15	28

Chi-Square = 1.292 with 2 degrees freedom:
Significance = .5241

* Behavioral Indicator C is "Encourages others--Avoids direct orders".

Given these observations, there does not seem to be a significant relationship between Behavioral Indicator C and superior performance. Nor, does LMET appear to influence superior/average performance where this behavioral indicator is concerned.

TABLE XIII

Use of Delegation--Behavioral Indicator D*

Superior Performers

<u># Incidents in which type D was observed</u>	<u># LMET Graduates</u>	<u># non-LMET Graduates</u>	<u>Total</u>
0	11	8	19
1	3	2	5
2	<u>1</u>	<u>2</u>	<u>3</u>
	15	12	27

Chi-Square = 0.682 with 2 degrees freedom:
Significance = .7110

Average Performers

<u># Incidents in which type D was observed</u>	<u># LMET Graduates</u>	<u># non-LMET Graduates</u>	<u>Total</u>
0	13	12	25
1	<u>2</u>	<u>1</u>	<u>3</u>
	15	13	28

Chi-Square = 0.0 with 1 degree freedom:
Significance = 1.0

* Behavioral Indicator D is "Controls 'Do it yourself' urge".

Given these observations, there does not seem to be a significant relationship between Behavioral Indicator D and superior performance. Nor, does LMET appear to influence superior/average performance where this behavioral indicator is concerned.

measured to see how "good" that fit is. Again, without going into the statistical derivations, SPSS produces an r-value which is a measure of "goodness of fit". R-values will fall in a range between -1.0 and +1.0, with values approaching either extreme indicating a good fit (a strong relationship between the variables) and values close to zero indicating a poor fit. If the r-value is squared, a more easily interpreted measure of association is produced. R-squared is literally said to be the proportion of variation in one variable that is explained by the other variable [Ref. 25: p. 276-280]. The statistical significance of the r-values can be interpreted in the same manner as the chi-square significance figures.

Pearson correlations were run to determine whether values of one element could partially explain or be used to predict the values of another. The types of delegation as determined by which behavioral indicator was observed, the three (commanders', interviewers', and readers') evaluations of superior/average, a consolidated (clearly) superior/average rating, and LMET graduation/non-attendance were regressed against one another. This met with minimal success in that several of the regressions were found to be statistically significant ($\alpha = .05$), but most of the highest significant r-values were found among the voting data rather than between the competency types and the votes or LMET. Some regression figures are presented in Table XIV. Conclusions based on these statistics will be addressed in the next chapter.

TABLE XIV

Pearson Correlations

<u>Regressor Variables**</u>	<u>Regression Coefficients-(R)</u>	<u>R- Squared</u>	<u>Significance</u>
Tot-Eval X Type-C	.3093	.0957	.011
Tot-Eval X Type-D	.2746	.0754	.021
Del-Indx X Type-D	.1803	.0325	.041
LMET X Type-D	-.1781	.0317	.043
CO-Eval X RE-Eval	.3212	.1032	.001
CO-Eval X INT-Eval	.5317	.2827	.000
INT-Eval X RE-Eval	.4918	.2419	.000
CO-Eval X Type-D	.1781	.0317	.043
RE-Eval X Type-C	.3064	.0939	.001
RE-Eval X Type-D	.2616	.0684	.005
Type-A X Type-B	.3542	.1255	.000
Type-A X Type-C	.3193	.1020	.001
Type-A X Type-D	.4143	.1716	.000
Type-B X Type-C	.2883	.0831	.002
Type-B X Type-D	.3196	.1021	.001
Type-C X Type-D	.4355	.1897	.000

** Codes:

Tot-Eval: Total evaluation, i.e., clearly superior or average

CO-Eval: Commander's evaluation of superior or average

RE-Eval: Reader's evaluation of superior or average

INT-Eval: Interviewer's evaluation of superior or average

Type-A: Clearly Assigns Authority

Type-B: Uses Chain of Command

Type-C: Encourages Others--Avoids Direct Orders

Type-D: Controls "Do it Yourself" Urge

Del-Indx: Delegation Index; (A + B + C + D)/# Incidents

VI. SUMMARY

A. ANALYSIS

This study of delegation provided great insight into the culture and operation of the United States Navy, especially for the authors, two Army officers, who had little association with Navy customs and procedures. Unfortunately, the study did not produce the expected results as far as the relationships between delegation and LMET training or superior performers are concerned. Perhaps some of those expectations were molded out of a lack of previous experience with the Navy, but most developed logically from the examination of a system that placed a value on leadership and attempted to instruct managers within that system on how to use the delegation competency, with the intention of improving the managers' performances.

The relationship that was expected to be strongest was between graduation from LMET and the use of the delegation competency. However, as evidenced by the tables in the previous chapter and the regressions run between LMET and each behavioral indicator, that relationship was very weak. In three of the four cases the regression coefficients were so small that they told nothing. They were also insignificant, so that any relationship which may have been present in the sample could not be used as an indicator of the population's parameters. The one regression that was significant

was between LMET and the fourth behavioral indicator, "Controls the urge to do it yourself and, instead manages others to carry out the responsibilities which have been assigned to them". Surprisingly, this regression coefficient was negative, indicating a slight tendency for those who attended LMET to do things themselves rather than delegate. LMET attendance though, accounted for only about 3% of the variation in the use of delegation, as indicated by this behavioral indicator. This is supported by the absolute numbers that appear in Table XI.

This study of delegation arose from a competency based model that maintained there was a positive relationship between the use of delegation and superior performance in the Navy. The data in the study, however, does not support a strong relationship. Superior performers did not use the delegation competency more than average performers. Nor did superior ratings correlate well with any behavioral indicator. Because this finding counters the McBer conclusions, several extra regressions were attempted with the average/superior ratings and the behavioral indicators. Not only were the clearly average and clearly superior ratings compared with each behavioral indicator, but composite measures of the delegation competency were constructed and regressed with superior/average ratings. These additional attempts added little new information. Small significant correlations were initially found between the reader's rating and behavioral

indicator D. These small relationships were born out in the composite indices where clearly superior performance was minimally explained by behavioral indicators C and D. But, the maximum amount of variance explained in any of these situations is 10%. This is not a sufficient explanation to be conclusive, particularly when viewed with the limitations of the study which are discussed later in this chapter.

As a spin-off of this study, a comparison between LMET graduates and the superior/average ratings was made. It was found that LMET graduates were equally distributed among the superior/average performers. While one might expect that LMET training would increase the chance that an individual would be rated superior, it could be countered that an even distribution of superior and average performers among LMET graduates is reasonable. The logic includes the facts that: A) the Navy's goal is to have all personnel in leadership positions (both average and superior) attend LMET, and B) that average personnel are sent to LMET as well as superior performers. This ignores the situations where marginal performers are sent to LMET training in order to improve their performance to an "average" level. The fact that delegation is taught in LMET but not used in daily performance could also be used to suggest that the Navy is an unfavorable environment in which to practice the skills learned in LMET.

The style of the interviews used to gather data for this study leads to another point about the relative importance

the interviewees attached to delegation. Non-directive interviewing allowed the participants to raise subjects and actions that were important to them, that they were especially conscious of, and that they could remember at the time of the interview. Delegation came up in only 27.8 percent of the incidents, where some competencies appeared in a much higher percentage of the incidents. The self-control competency, for instance, appeared in 100 percent of the incidents. Thus, delegation was not as important to the middle managers interviewed as some other aspects of their jobs.

B. CONCLUSIONS

The major conclusions of this study, then, are as follows:

First, the authors conclude that there is no relationship in the Navy between superior performance and the delegation competency.

Second, it can be said that LMET attendance is not related to superior performance or the use of the delegation competency.

Lastly, the study points out that the Navy's middle managers accept delegation as a routine, rather than as a discretionary tool to be consciously applied.

C. PROBLEMS WITH THE STUDY

While some readers might accept the above conclusions out of hand, the discerning will raise criticisms which range from attacks on the sampling procedures to discourses on the

McBer technique. The authors concur that some areas of the study could have been strengthened.

Of primary concern is the question of how appropriate the McBer technique is to the study of just one competency. Where McBer used the technique to build a complete model, the authors were interested in only a small portion of the available data. It is a less than comprehensive study in this regard. The interview technique allowed the interviewees to choose subjects which were important to them (or maybe subjects that they could think of at the time), but did not focus on the subject of delegation. More directive interviews would have increased the validity of the data. Since no one was asked specifically about delegation or about how and when it was used, there would appear to be a vast opinion pool that is missing from the data. Yet, it was not intended that opinions be gathered, but rather, actions. The actual data gap came about by using the project design of the heterogeneous workgroup project and attempting to extract more specific information on a smaller area than was originally planned. While this does not invalidate the study, it suggests that more conclusive results could be obtained through redesign.

Further questions on the execution of McBer's technique weaken other conclusions of the study. McBer supported their model by administering back-up surveys to a large sample, i.e., over a thousand managers. They used that data to

confirm the results of the interviews and validate the competency model they developed. In this study, no such back-up data was gathered or evaluated. These departures from the McBer philosophy decrease the significance of any conclusions drawn from this thesis, or for that matter, from the heterogeneous workgroup project itself. Daniel Goleman describes the use of peer group ratings and the administering of critical decisions tests to another sample group as elements of McBer's competency testing--elements which were absent in this study [Ref. 11: p. 36].

Another similar issue which could be attacked is interrater reliability. McBer used the critical decisions tests to eliminate competencies which were not appropriate for the Navy's model, allowing the different sample of managers to validate the information. In lieu of using a new and different sample, this study had an independent coder recode the interview transcripts in order to validate the model. The independent coder had a success ratio of over 50 percent, but there were no efforts to eliminate competencies which did not appear in all coding sets. This factor will cause some discriminating readers to conclude that this study is thus limited.

One article on competency tests said, "Neither McBer nor its clients have so far produced much empirical proof that their method does, in fact, lead to demonstrable improvements in job performance" [Ref. 11: p. 46]. Similarly, readers of

this study will conclude from it that there is no empirical proof that the delegation competency is a characteristic of superior performers. The inaccuracies inherent in any subjective study are obvious here, as well. In viewing the behavioral indicators of the delegation competency, it is often the case that the categories overlap. This is evidenced by the significant relationships found when correlating the behavioral indicators with one another. The lack of independence of these indicators suggests that there is some difficulty in separating the manner in which people use and/or code the delegation competency. The study in its subjectivity, however, cannot support the opposing positions either. For instance, one cannot maintain with this data that the delegation competency is not a characteristic of superior performers, or that average performers possess the competency in the same quantities as their higher rated counterparts.

Another area of concern is the adequacy of the sample. As with many similar studies, time and money were constraints during the information gathering phase. Because of this, the sample size was limited, and the sample selection by lacking randomness, was biased. An increase in sample size, of course, would have improved the believability of any correlations which were run. Biases on the other hand, are more difficult to deal with. Allowing commanders or their representatives to choose the interviewees affected the results, as did the dependence on geographical location and availability

of interviewees. Further, the sample composition which includes ensigns and junior petty officers, affected the outcome of the study. It is entirely possible that such junior managers are not called upon to use the delegation competency as often as more senior managers, or that they are not in positions that allow significant amounts of delegation.

D. RECOMMENDATIONS

Despite the conclusions of this study, the authors' personal experiences lead them to believe that delegation is an important part of a leader's job. The fact that McBer's model included delegation as a competency of superior performers adds strong support to this view.

This raises a question about whether the delegation competency was sufficiently isolated in this study to be examined in such depth. That is, can one competency be separated from the McBer framework, and was an adequate job of that separation accomplished? Particularly in the context of the Navy's training goal, it follows that if a competency is not separately observable, it is perhaps not separately educable. With this in mind, further study of delegation is recommended, as follows:

1. Use a larger and stratified sample of O-3's and above for officers, and E-7's and above for enlisted. The authors feel this will improve the confidence in the observations because it is possible that supervisors in larger organizations use delegation more than in smaller units.

2. A different sample chosen by position would also be appropriate, since a supervisor needs subordinates to whom responsibilities may be delegated. Here, methods of coding the scope of each position would have to be developed.

3. Other techniques for study, which differ from McBer's method are warranted. Opinion surveys, for instance would provide more conclusive results.

4. Evaluations of the environments in which delegation is used most would add to a greater understanding of the competency. Such things as the organizational structure and policies are good points of departure. This study ignored such environmental issues as whether delegation is an appropriate response in the face of crisis, or whether persons who are in autonomous positions tend to delegate more.

5. The various aspects of institutional delegation (i.e., delegation to positions rather than to individuals) should be dissected.

6. Future studies of any competencies should be undertaken only after careful consideration of the methodology to be employed, and with a more strict adherence to the selected procedures.

Because the authors did not study the specifics of LMET and how it conducts training on the delegation competency (i.e., before and after training tests on how much one subject delegates), it is beyond the scope of this study to suggest revisions to the LMET Program. In fact, the authors feel that training on delegation is quite important to tomorrow's

leaders. Quick fixes on the education system as a result of this study are therefore, not called for.

Overall, the authors think that their observations and conclusions are heavily skewed by environmental factors well outside of the training arena. Navy leaders do not delegate because the new young sailors they have to supervise are not yet delegable. Higher in the chain, delegation fails because seniors manage with too much detail, believing that the little mistakes cost too dearly in promotion considerations. In the long run, it is a relaxing of the environmental constraints that will allow delegation to flourish. It is there then, that future study efforts should be directed.

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